CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A compound having the formula

wherein

X is S, SO or SO₂;

R¹ is a 5—or 6-membered monocyclic, hetero—or homocyclic, saturated or unsaturated pyridyl ring structure optionally substituted with one or more substituents selected from the group consisting of halogen, CN, (1C-4C)fluoroalkyl, nitro, (1C-4C)alkyl, (1C-4C)alkoxy and (1C-4C)fluoroalkoxy;

R² is 2-nitrophenyl, 2-cyanophenyl, 2-hydroxymethyl-phenyl, pyridin 2-yl, pyridin 2-yl Noxide, 2-

R³ is H, halogen or (1C-4C)alkyl;

R4 is H, OH, (1C-4C)alkoxy, or halogen;

benzamide, 2-benzoic acid methyl ester or 2-methoxyphenyl;

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 $R^{5} \ is \ H, \ OH, \ (1C\text{-}4C) alkoxy, \ NH_{2}, \ CN, \ halogen, \ (1C\text{-}4C) fluoroalkyl, \ NO_{2}, \ hydroxy(1C\text{-}4C) alkyl, \ hydroxy(1C\text{-}4C) a$

CO2H, CO2(1C-6C)alkyl, or

 $R^5 \ \text{is NHR}^6, \ \text{wherein} \ R^6 \ \text{is (1C-6C)acyl optionally substituted with one or more halogens, S(O)}_2 (1C-6C)_2 (1C-6C)_2$

4C)alkyl, or S(O)2aryl optionally substituted with (1C-4C)alkyl or one or more halogens, or

R⁵ is C(O)N(R⁸,R⁹), wherein R⁸ and R⁹ each independently are H. (3C-6C)cycloalkyl, or CH₂R¹⁰.

wherein R¹⁰ is H. (1C-5C)alkyl, (1C-5C)alkenyl, hydroxy(1C-3C)alkyl, (1C-4C)alkylester of

carboxy(1C-4C)alkyl, (1C-3C)alkoxy(1C-3C)alkyl, (mono- or di(1C-4C)alkyl)aminomethyl,

(mono- or di(1C-4C)alkyl)aminocarbonyl, or a 3-, 4-, 5- or 6-membered monocyclic, homo- or

heterocyclic, homocyclic, aromatic or non-aromatic ring, or R8 and R9 form together with the N a

heterocyclic 5 or 6 membered saturated or unsaturated ring optionally substituted with (1C-

4C)alkyl;

or a salt thereof

2. (Currently Amended) The compound according to claim 1, wherein,

R1 is a 5 or 6 membered monocyclic, hetero- or homocyclic, saturated or unsaturated pyridyl ring

structure optionally substituted with one or more substituents selected from the group consisting of

halogen, CN, CF3, nitro, methoxy, trifluoromethoxy and methyl;

R² is 2-nitrophenyl, 2-cyanophenyl, 2-hydroxymethyl-phenyl, pyridin 2-yl, pyridin 2-yl N-oxide, 2-

benzamide, 2-benzoic acid methyl ester or 2-methoxyphenyl;

R³ is H, halogen or (1C-2C)alkyl;

R4 is H or F.

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3. (Currently Amended) The compound according to claim 2, wherein,

R⁵ is H, OH, (1C-4C)alkoxy, CN, halogen, (1C-4C)fluoroalkyl, NO₂, hydroxy(1C-4C)alkyl,

CO2(1C-6C)alkyl, or

R⁵ is NHR⁶, wherein R⁶ is (1C-6C)acyl optionally substituted with one or more halogens, S(O)₂(1C-

4C)alkyl, or S(O)2 aryl optionally substituted with (1C-4C)alkyl or one or more halogens, or

R⁵ is C(O)N(R⁸,R⁹), wherein R⁸ and R⁹ each independently are H, (3C-6C)cycloalkyl, or CH₂R¹⁰,

wherein R¹⁰ is H, (1C-5C)alkyl, (1C-5C)alkenyl, hydroxy(1C-3C)alkyl, (1C-4C)alkylester of

carboxy(1C-4C)alkyl, (1C-3C)alkoxy(1C-3C)alkyl, (mono- or di(1C-4C)alkyl)aminomethyl,

(mono- or di(1C-4C)alkyl)-aminocarbonyl, or a 3-, 4-, 5- or 6-membered monocyclic, homo- or

heterocyclic, homocyclic, aromatic or non-aromatic ring, or R⁸ and R⁹ form together with the N a

heterocyclic 5 or 6 membered saturated or unsaturated ring optionally substituted with (1C-

4C)alkyl.

4. (Currently Amended) The compound according to claim 3, wherein.

R3 is H or halogen;

R4 is H:

R⁵ is H, OH, (1C-4C)alkoxy, CN, F, Cl, CF₃, NO₂, hydroxy(1C-4C)alkyl, CO₂(1C-6C)alkyl, or

R⁵ is NHR⁶, wherein R⁶ is (1C-3C)acyl optionally substituted with one or more halogens or

R⁵ is C(O)N(R⁸.R⁹), wherein R⁸ and R⁹ each independently are H. (3C-5C)cycloalkyl, or CH₂R¹⁰.

wherein R¹⁰ is H, (1C-5C)alkyl, (1C-5C)alkenyl, hydroxy(1C-3C)alkyl, (1C-2C)alkylester of

carboxy(1C-2C)alkyl, (1C-3C)alkoxy(1C-3C)alkyl, (mono- or di(1C-4C)alkyl)aminomethyl, (mono- or di(1C-4C)alkyl)aminocarbonyl, or (3C-5C)cycloalkyl, or a 5 membered heteroeyelie ring.

5. (Currently Amended) The compound according to claim 4, wherein,

X is S or SO₂;

R² is 2-nitrophenyl, 2-hydroxymethyl-phenyl, 2-benzamide, 2-methoxyphenyl, <u>or</u> 2-cyanophenyl or pyridin 2-yl;

R3 is H or F:

$$\begin{split} R^5 & is\ H,\ OH,\ (1C-2C) alkoxy,\ CN,\ F,\ Cl,\ CF_3,\ NO_2,\ hydroxy(1C-4C) alkyl,\ CO_2(1C-4C) alkyl,\ or \\ R^5 & is\ NHR^6,\ wherein\ R^6 \ is\ formyl,\ acetyl,\ fluoroacetyl,\ difluoroacetyl,\ or\ trifluoroacetyl,\ or \\ R^5 & is\ C(O)N(R^8,R^9),\ wherein\ R^8 \ is\ H,\ and\ R^9 \ is\ H,\ cyclopropyl\ or \end{split}$$

 R^9 is CH_2R^{10} , wherein R^{10} is H, (1C-2C)alkyl, hydroxy(1C-2C)alkyl, methoxy(1C-2C)alkyl, or cyclopropyl.

6. (Currently Amended) The compound according to claim 5, wherein,

X is S:

R¹ is 3,5 difluorophenyl, pyridin-2-yl, pyridin-3-yl, pyrimidin 5 yl, pyrimidin 4 yl, pyrazin 2 yl, 3-fluorophenyl, 3 cyanophenyl, or 3 nitrophenyl;

 R^2 is 2-nitrophenyl, 2-hydroxymethyl-phenyl, 2-methoxyphenyl, or 2-cyanophenyl or pyridin 2-yl; R^3 is H:

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R⁵ is OH, (1C-2C)alkoxy, CN, CF₃, NO₂, hydroxy(1C-4C)alkyl, CO₂(1C-4C)alkyl, or NHR⁶.

wherein R⁶ is formyl, acetyl, fluoroacetyl, difluoroacetyl, or trifluoroacetyl.

7. (Currently Amended) The compound according to claim 6, wherein.

R1 is 3,5-difluorophenyl, pyridin-2-yl, or pyridin-3-yl, pyrimidin 5-yl, pyrimidin 4-yl, or pyrazin 2-

₩;

R² is 2-nitrophenyl, or 2-hydroxymethyl-phenyl;

R⁵ is OH, (1C-2C)alkoxy, CN, hydroxy(1C-4C)alkyl, or NHR⁶, wherein R⁶ is formyl, acetyl,

3-(2-Nitro-

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fluoroacetyl, difluoroacetyl, or trifluoroacetyl.

8. (Currently Amended) The compound according to claim 7, wherein,

R1 is 3.5-difluorophenyl, pyridin-2-yl, or pyridin-3-yl, pyrimidin 5-yl, or pyrimidin 4-yl;

R² is 2-nitrophenyl:

R5 is OH. (1C-2C)alkoxy, CN, or NHR6, wherein R6 is formyl, acetyl, fluoroacetyl, difluoroacetyl,

or trifluoroacetyl.

9. (Currently Amended) The compound according to claim 8 selected from the group consisting of

6 Methoxy 3 (2 nitro phenylsulfanyl) 1 pyrimidin 5 ylmethyl 1H indole.

phenylsulfanyl)-1-pyridin-2-ylmethyl-1*H*-indole-6-carbonitrile, and 3-(2-Nitro-phenylsulfanyl)-1-

pyridin-2-ylmethyl-1*H*-indole-6-carbonitrile-hydrochloride. 3 (2 Nitro phenylsulfanyl) 1

pyrimidin 5 ylmethyl 1H indole 6 carbonitrile, 3 (2 Nitro phenylsulfanyl) 1 pyrimidin 4 ylmethyl-

1/H indole 6 carbonitrile. N11 (3.5 Difluoro benzyl) 3 (2 nitro phenylsulfanyl) 1/H indol 6 yll 2

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fluoro acetamide, and N [3 (2-Nitro phenylsulfanyl) 1-pyrimidin 5-ylmethyl 1H indol 6-yl]

formamide.

10. (Currently Amended) The compound according to claim 5, wherein,

X is S;

R¹ is 3,5 difluorophenyl, pyridin-2-yl, or pyridin-3-yl, 3-fluorophenyl, 3-cyanophenyl, or 3-

nitrophenyl;

R² is 2-nitrophenyl, 2-hydroxymethyl-phenyl, 2-methoxyphenyl, or 2-cyanophenyl or pyridin 2-yl:

R3 is H:

R⁵ is C(O)N(R⁸,R⁹), wherein R⁸ is H, and R⁹ is H, or CH₂R¹⁰, wherein R¹⁰ is H, (1C-2C)alkyl,

hydroxy(1C-2C)alkyl, or methoxy(1C-2C)alkyl.

11. (Currently Amended) The compound according to claim 10, wherein,

R1 is 3.5 difluorophenyl, pyridin-2-yl, or pyridin-3-yl;

R² is 2-nitrophenyl, or 2-hydroxymethyl-phenyl:

R⁵ is C(O)N(R⁸,R⁹), wherein R⁸ is H, and R⁹ is CH₂R¹⁰, wherein R¹⁰ is H, or (1C-2C)alkyl.

 $12. \ (Withdrawn) \ The \ compound \ according \ to \ claim \ 11, \ which \ is \ 1-(3,5-Difluoro-benzyl)-3-(2-nitro-benzyl) \ decomposition \ decomposition$

phenylsulfanyl)-1H-indole-6-carboxylic acid methylamide.

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13. (Currently Amended) The compound according to claim 4, wherein,

X is S:

R¹ is 3,5-difluorophenyl, pyridin-2-yl, or pyridin-3-yl, 3-fluorophenyl, 3-eyanophenyl, or 3-nitrophenyl:

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 $\textbf{R}^2 \text{ is 2-nitrophenyl, 2-hydroxymethyl-phenyl, 2-methoxyphenyl, } \underline{\textbf{or}} \text{ 2-cyanophenyl } \underline{\textbf{or pyridin 2-yl}};$

R3 is H;

 R^5 is $C(O)N(R^8,R^9)$, wherein R^8 and R^9 each independently are H, or CH_2R^{10} , wherein R^{10} is H, (1C-5C)alkyl, (1C-5C)alkyl, (1C-3C)alkyl, (1C-3C)alkyl, or (1C-3C)alkyl, or (1C-3C)alkyl)aminomethyl.

14. (Currently Amended) The compound according to claim 13, wherein,

R¹ is 3,5-difluorophenyl, pyridin-2-yl, or pyridin-3-yl;

R² is 2-nitrophenyl, or 2-hydroxymethyl-phenyl;

 R^5 is $C(O)N(R^8,R^9)$, wherein R^8 and R^9 each independently are H, or CH_2R^{10} , wherein R^{10} is H, (1C-5C)alkyl, hydroxy(1C-3C)alkyl, or (1C-3C)alkoxy(1C-3C)alkyl.

15. (Withdrawn) The compound according to claim 14, which is 1-(3,5-Difluoro-benzyl)-3-(2-nitro-phenylsulfanyl)-1H-indole-6-carboxylic acid dimethylamide.

16. (Canceled).

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17. (Previously Presented) A pharmaceutical composition, comprising:

the compound according to claim 1 or salt thereof and a pharmaceutically acceptable carrier.

18. (Currently Amended) A method of treating an androgen receptor related disorder benign

prostate hyperplasia in a patient in need thereof, comprising:

administering to said patient a pharmaceutically effective amount of the compound or salt

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thereof according to claim 1.

19. (Cancelled)

20. (Withdrawn) A method of treating an androgen insufficiency, comprising:

administering a pharmaceutically effective amount of the compound according to to claim 1 to a

subject in need thereof.

21. (Cancelled).